- 17 Harada K, Tsuda A, Orino T, et al. Tissue Doppler imaging in the normal fetus. Int J Cardiol 1999;71:227–34.
- 18 Aoki M, Harada K, Ogawa M, et al. Quantitative assessment of right ventricular function using Doppler tissue imaging in fetuses with and without heart failure. Am Soc Echocardiogr 2004;17:28–35.
- 19 Gardiner HM. Fetal echocardiography: 20 years of progress. Heart 2001;86(suppl 2):II12–22.
- Jaeggi ET, Fouron JC, Proulx F. Fetal cardiac performance in uncomplicated and well-controlled maternal type I diabetes. *Ultrasound Obstet Gynecol* 2001;17:311–5.
- 21 Reller MD, Kaplan S. Hypertrophic cardiomyopathy in infants of diabetic mothers: an update. Am J Perinatol 1988;5:353–8.
- 22 Nagueh SF, McFalls J, Meyer D, et al. Tissue Doppler imaging predicts the development of hypertrophic cardiomyopathy in subjects with subclinical disease. Circulation 2003;108:395–8.
- 23 Henein MY, Priestley K, Davarashvili T, et al. Early changes in left ventricular subendocardial function after successful coronary angioplasty. Br Heart J 1993;69:501–6.

- 24 Rizzo G, Arduini D, Romanini C. Cardiac function in fetuses of type I diabetic mothers. Am J Obstet Gynecol 1991;164:837–43.
- 25 Tsyvian P, Malkin K, Artemieva O, et al. Assessment of left ventricular filling in normally grown fetuses, growth-restricted fetuses and fetuses of diabetic mothers. Ultrasound Obstet Gynecol 1998;12:33–8.
- 26 Weiner Z, Zloczower M, Lerner A, et al. Cardiac compliance in fetuses of diabetic women. Obstet Gynecol 1999;93:948–51.
- 27 Miyake T. Doppler echocardiographic studies of diastolic cardiac function in the human fetal heart. Kurume Med J 2001;48:59–64.
- 28 Wong SF, Chan FY, Cincotta RB, et al. Cardiac function in fetuses of poorly-controlled pre-gestational diabetic pregnancies: a pilot study. Gynecol Obstet Invest 2003;56:113-6.
- 29 Weber HS, Botti JJ, Baylen BG. Sequential longitudinal evaluation of cardiac growth and ventricular diastolic filling in fetuses of well controlled diabetic mothers. *Pediatr Cardiol* 1994;15:184–9.
- Mehta S, Nuamah I, Kalhan S. Altered diastolic function in asymptomatic infants of mothers with gestational diabetes. *Diabetes* 1991;40(suppl 2):56–60

IMAGES IN CARDIOLOGY.....

doi: 10.1136/hrt.2005.079905

Cardiogenic pulmonary oedema masquerading as a tumour mass

76-year-old man—past smoker with hypertension and history of anterior myocardial infarction treated 12 years ago by early balloon angioplasty of the left anterior descending coronary artery (LAD)—was referred to our attention for progressive exertional dyspnoea, cough and scanty mucosal expectoration. The previous angiographic examination performed three months ago for unstable angina revealed two moderate stenotic lesions of the LAD; the left ventricular ejection fraction was 52%. Soon after, asymptomatic new-onset atrial fibrillation was incidentally discovered by his physician prompting oral anticoagulation.

Physical examination disclosed abolished vesicular murmur with dullness to percussion over the right pulmonary base. There were no pulmonary crackles and no peripheral oedema. The patient was afebrile.

The chest radiograph demonstrated a dense round-shaped infiltrate in the right lower pulmonary lobe suggestive of a mass lesion (panel A). However, careful inspection of the

radiograph also revealed mild cardiomegaly, perihilar infiltrates and slurring of the costophrenic angles, all these elements pointing toward the possibility of a pulmonary oedema. Thus, the patient was initially started on oral diuretic treatment (furosemide 80 mg/day). Five days later, the symptoms resolved and the infiltrate on the chest radiograph disappeared (panel B).

Chest radiography has a prominent role in the diagnostic work-up for heart failure, but also possesses limitations. These images illustrate an atypical radiographic appearance of subacute cardiogenic pulmonary oedema masquerading as a pulmonary tumour and highlight the importance of minor details in the analysis of the chest radiograph.

R Onea P M Coulbois L Levai ronea@cegetel.net



